

# Summer Academy UNIT OF STUDY

8 <sup>th</sup> Grade Math – Module 3 – Mystery of Blacktail Canyon	
<b>Unit Title</b> <b>Length of Delivery of Unit</b> <b>Team Members</b>	<input checked="" type="checkbox"/> 8 <sup>th</sup> Grade Math – Module 3 – Mystery of Blacktail Canyon <input checked="" type="checkbox"/> Approximately one month <input checked="" type="checkbox"/> Michelle Koenig, Christine Bachofen, Kim Trendel
<b>Unit Objective or Purpose:</b>	<input checked="" type="checkbox"/> Students will solve a mystery using reading strategies and mathematical concepts and skills that are taught in class.
<b>Academic Goals &amp; Standards:</b> (Locate standards on the district web site: Click on District Dept Click on Curriculum Click on Academic Goals And Standards – left side column listed by grade levels)	<input checked="" type="checkbox"/> <b>Math:</b> <u><b>A.1.a.</b></u> Use reasoning abilities to evaluate information. <u><b>A.2.</b></u> Communicate logical arguments clearly to show why a result makes sense. <u><b>A.4.b.</b></u> Develop effective oral and written presentations that include conventions of mathematical discourse (symbols, definitions, labeled drawings). <u><b>B.1.</b></u> Perform and explain operations on rational numbers (add, subtract, multiply, divide, square root, raise to a power). <u><b>B.2.a.</b></u> Apply proportional thinking in a variety of problem solving situation (similarity) <u><b>B.4.b.</b></u> Select and use appropriate computational procedures with rational numbers such as estimating (estimate square roots). <u><b>E.2.a.</b></u> Organize and display data using appropriate tables, graphs, and/or charts (Venn diagrams). <u><b>F.1.a-b.</b></u> Work with algebraic expressions in a variety of ways, including using appropriate symbolism, evaluating expressions. <u><b>F.2.a-b.</b></u> Work with linear patterns and relationships by representing them with tables and graphs (x-y tables and graphs), describing their graphical representations (slope).  <input checked="" type="checkbox"/> <b>Language Arts and Reading</b> <u><b>A.4.c.</b></u> Read to acquire information: identify and explain information and main ideas found in a variety of informational passages.

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<b>Academic Goals &amp; Standards (continued):</b> (Locate standards on the district web site: Click on District Dept Click on Curriculum Click on Academic Goals And Standards – left side column listed by grade levels)	<input checked="" type="checkbox"/> <b>Language Arts and Reading</b> <u><b>A.4.d.</b></u> Read to acquire information: distinguish between the facts found in documents, charts, maps, and tables and to generalize and interpret them (in order to solve the math mystery). <u><b>B.1.h.</b></u> Produce writing to communicate: write for a variety of readers, including peers and teachers
<b>Connection to district curriculum:</b> (Briefly describe how existing curriculum will be enhanced through this project.)	<input checked="" type="checkbox"/> This project will create more interactive learning activities that will engage the students into applying several mathematical concepts and skills in order to solve a problem. This unit will now require application of reading strategies to gather math knowledge and clues/information in order to solve a given mystery. We have also included the differentiated instruction technique of flexible grouping based on student skill level, which will allow us to better meet the instructional needs of different groups of students. Lastly, we are utilizing the iPods, which will increase student participation, motivation, and engagement in reading the mystery.
<b>BRIEFLY highlight how each of the five strands are represented in the unit.</b>  Literacy, Tech Tools, Differentiation, Assessment, Information Literacy	<input checked="" type="checkbox"/> Literacy: text coding <input checked="" type="checkbox"/> Tech Tools: iPods <input checked="" type="checkbox"/> Differentiation: flexible grouping, learning styles (note taking, singing, color coding, think alouds), differentiated assignments <input checked="" type="checkbox"/> Assessment: pre-testing, thumbs up/down, checkpoint questions, mid-module quiz, end of module test <input checked="" type="checkbox"/> Information Literacy: website for reviewing skills to post on our wiki page